



Electric Vehicle Charging Solutions



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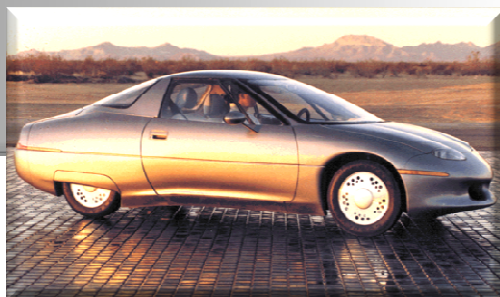
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Zero Emission

Two Decades of Clean Transportation Expertise

1989



Impact EV
First modern on-road electric car

Power Cycling & Test Systems

Test equipment of choice for leading automotive, battery and fuel cell companies



Industrial PosiCharge™
Leading EV fast charger for industrial, airline, military, and AGVs



Original PosiCharge EV Charger
Developed to facilitate fast, hassle-free, opportunistic EV charging

2010



Home Charger
Fully charges EV batteries in as little as four hours, and is also compatible with most PHEVs.



EV Fast Charger
Next-Gen EV Charger designed for ultra-fast charging to alleviate consumer range anxiety and facilitate high-volume EV launch

Subject Matter Experts

■ Member and subcommittee chair in leading industry standards development efforts worldwide

- US: SAE J1772, J2293, J2847 for EV Connector and EV Communications
- US, China: UL 2580, Batteries for Use in Electrical Vehicles, Standards Technical Panel
- Europe: IEC SC23H/PT62196 for EV connector



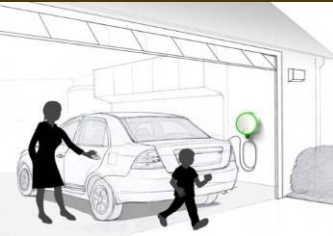

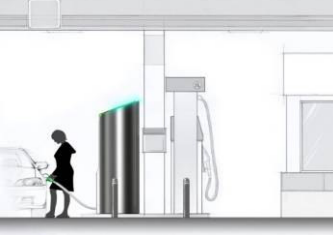
■ Public policy leadership

- Founding member of Battery Electric Vehicle Coalition (BEVC)
- Helped secure \$7,500 plug-in credit and increased cap and larger battery threshold
- Helped secured electricity as an “alternative fuel” under existing alternative fuel vehicle refueling credit and then increased the credit to 50% in ARRA legislation



EV Solutions

Eliminating EV Range Issues

<p>At-home charging: inexpensive, convenient, off-peak energy</p>	 A line drawing of a car parked in a garage. A person is standing next to the car, and a charging cable is plugged into the rear of the vehicle. The garage door is open, and a small child is walking towards the car.
<p>Public and at-work charging: extends daily range</p>	 A line drawing of a car parked at a public charging station. A person is standing next to the car, and a charging cable is plugged into the front of the vehicle. The station is located in front of a building.
<p>Fast-charge stations: long distance travel or immediate re-charge</p>	 A line drawing of a car parked at a fast-charging station. A person is standing next to the car, and a charging cable is plugged into the front of the vehicle. The station is located in front of a building.

AeroVironment Residential Home Charging Unit

- **Designed for Usability**
- **Designed for Safety**
- **Designed for the Intended Environment**
- **Long Service Life**



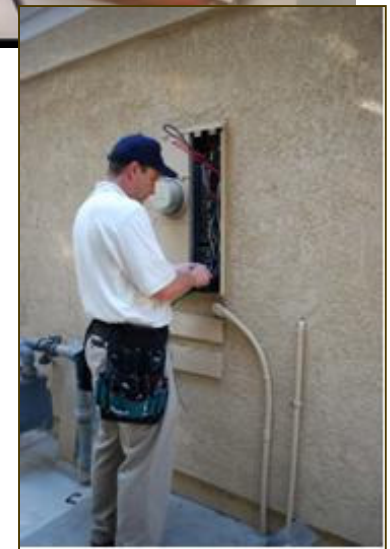
Home Charging Unit Advanced Features

- Expanded communication modules
- Utility Grade Metering
- Smart Grid applications
- Remote charge monitoring and notifications
- Advanced web-based software to interface with EVSE



Home Charging Unit Installation Services

- Nationwide network of AV installers
- Familiar with local inspectors and permitting processes
 - Minimizes installations issues
 - Focused on expedient service
- Proprietary test/verification process
 - Validates proper EVSE installation and operation
- Long track record in worldwide logistics and service capability
 - Over 14,000 fast chargers supporting critical production and time sensitive distribution operations
 - Over 400 pieces of test equipment used to support essential research, development and production testing
 - Over 12,000 unmanned electric aircraft fielded supporting mission critical military operations throughout the world, focusing on Iraq/Afghanistan
 - 40% of the unmanned aircraft business is service, logistics and training



Recommendations

- Expedited permitting and inspection process
 - On-line permitting
 - Statewide uniform permitting requirements and cost
 - Volume/Bulk Permitting
 - Pull multiple standard install permits at a time
 - Monthly permits
 - Self-inspection for certified installers
 - Only 1 out of X installations is audited for a certified contractors
 - Written reports with pictures and test data are sufficient
- Integrate Utilities in the installation process
 - Standardize the process statewide